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ABSTRACT

Five program areas among Wyoming higher education institutions were studied. The programs analyzed were: Agriculture, Apprenticeship Training, Computer Science, Law Enforcement, and Secretarial Science. The purpose of the study was to compare the five programs among the community colleges and the University of Wyoming. The report is divided into four sections: (1) bases of comparison and data definitions, (2) presentation of the data, (3) conclusions of the study, and (4) recommendations for future direction. (Author/DB)

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A STUDY OF FIVE PROGRAM AREAS WITHIN HIGHER EDUCATION INSTITUTIONS IN THE STATE OF WYOMING

prepared for

THE WYOMING HIGHER EDUCATION COUNCIL

November 1973

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JC 740 405

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INTRODUCTION

This is a report of a study of five program areas among Wyoming higher education institutions. At the request of the Wyoming Higher Education Council, the programs that were analyzed are: Agriculture, Apprenticeship Training, Computer Science, Law Enforcement and Secretarial Science. These programs were selected by the Higher Education Council following a study by the Community College Commission. The purpose of the study was to compare the five programs among the Community colleges and University of Wyoming.

This consultant visited the Wyoming higher education institutions and talked with administrators, department chairmen, faculty members, business managers and registrars to obtain information that is included in this study.

This report is divided into four sections: (1) Bases of comparison and data definitions; (2) Presentation of the data; (3) Conclusions of the study; and (4) Recommendations for future direction.

SECTION I

Bases of Comparison

At the onset of this study an attempt was made to gather data to compare the five programs based on student credit hours produced (SCH), student contact hours produced (SCTH) and job competency skill levels achieved. These three methods of comparison would then have been related to direct instructional costs as an additional method of comparison. Due to the unavailability of data within some institutions the original design of the study was modified.

As indicated in the Introduction, five program areas in which each institution offers courses were compared. Within each area comparisons were made on the basis of five factors which are explained in the data definitions. The following raw data were collected from each institution for the academic years 1970-71, 1971-72, and 1972-73: course enrollments, FTE faculty nine month salaries, credit hours taught per course and part time faculty salaries per course.

Fall 1973 data are not included in this study. The raw data gathered in each program area do not include all of the courses that would normally be included in a student program major, i.e., History, Math, English, etc.

Data were gathered only on those courses taught in each program area, i.e., Agriculture, Apprenticeship Training, Computer Science, Law Enforcement and Secretarial Science.

Data Definitions

When a study of this kind is undertaken it is necessary to gather common data in order to achieve comparability. This consultant found that many institutions had different definitions of common data elements. Some of the common data elements were then arbitrarily defined for comparison of the program areas. The reader should keep this in mind when observing and comparing the data in Tables I - V.

The terms used are directly related to the column headings in Tables I - V.

Semester Hours of Classes Taught - aggregated semester hours taught in the program area.

Student Credit Hours Produced (SCH) - Student credit hours are computed by multiplying the enrollment in a class times the credit offered for a particular course.

Example: Gen Ag 101 - 3 credits X 30 students enrolled = 90 SCH

Average Size of Classes - the average enrollment of all classes taught.

Percent of Small Classes - the percent of classes taught that had enrollments less than a class size of ten students.

Instructional Salary Cost per SCH - Instructional salary costs are computed by taking the proportion of salary, based on the time devoted by individual faculty members to courses offered in each program area and as approved by a representative of each institution, and dividing this proportion by the SCH generated by each faculty member in these courses.

Example: .5 FTE X $8,000.00 (9 month salary) = $4,000.00
$4,000.00 + 40 SCH = $100.00 Instructional Salary/SCH.

The reader should be cautioned that costs arrived at in this study do not reflect indirect costs such as supplies, equipment, building costs, insurance, etc. The costs reflected in this study are only a portion of the total costs within each institution. Each institution will vary in total costs just as the instructional costs do in this study.

FTE Faculty (Community College) - a faculty member whose normal teaching load is 15 credits per semester or 30 credits per year.

FTE Faculty (University) - a faculty member whose normal teaching load is 12 credits per semester or 24 credits per year.

SECTION II

Presentation of the Data

The following data were aggregated from the raw data obtained from each institution. To present a clearer comparative analysis, a short narrative description of each program follows each Table.

AGRICULTURE

Six higher education institutions offer Agriculture programs. The community colleges are offering one and two year occupational career programs in addition to the two year transfer programs. The University of Wyoming offers a number of options for students enrolling as Agriculture majors.

TABLE I
AGRICULTURE

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Institutions	Sem. Hrs. of Classes Taught			Student Credit Hrs. Produced			Average Size of Classes			Percent of Small Classes			Instructional Salary Cost Per SCH		
	70/71	71/72	72/73	70/71	71/72	72/73	70/71	71/72	72/73	70/71	71/72	72/73	70/71	71/72	72/73
Eastern															
Fresh	24	32	29	610	470	337	15.56	13.70	13.41	33	30	50	10.60	17.21	18.83
Soph	14	44	59	384	479	759	15.50	12.53	12.05	16	33	36	17.70	20.12	29.40
Total	38	76	88	994	949	1096							13.34	13.94	26.15
Sheridan															
Fresh	19	34	51	422	445	665	21.50	15.00	14.33	16	50	22	13.60	24.04	23.30
Soph	16	13	3	163	125	39	9.60	9.50	13.00	60	25	0	32.18	22.20	22.79
Total	35	47	54	585	570	704							18.78	23.64	23.27
Central															
Fresh	9	8	7	72	19	52	7.25	2.00	7.50	75	100	100	40.65	94.15	50.42
Soph	13	15	0	61	67	0	4.50	3.80	0	100	100	0	20.80	21.86	0
Total	22	23	7	133	86	52							31.54	37.83	50.42
Northwest															
Fresh	27	30	25	445	593	501	16.16	19.25	19.73	8	8	0	22.58	23.45	20.50
Soph	15	15	30	212	239	465	11.67	16.20	15.63	33	20	12	33.35	24.94	22.09
Total	42	45	55	657	832	966							26.05	23.88	21.26
Casper															
Fresh	35	36	39	1156	1044	890	32.69	29.00	23.00	0	0	0	16.12	17.99	21.08
Soph	19	19	19	279	341	213	14.33	17.66	11.16	16	0	33	43.01	39.92	48.54
Total	54	55	58	1435	1385	1103							21.36	23.39	26.35
University															
Fresh	25	13	21	917	443	775	44.60	36.50	40.37	10	0	0	14.32	60.86	29.14
Soph	13	15	16	515	597	460	37.40	36.33	27.33	0	0	16	31.45	22.98	38.37
Total	38	28	37	1432	1040	1235							20.48	39.11	32.58

EASTERN WYOMING COMMUNITY COLLEGE - AGRICULTURE

Description:

Eastern Wyoming Community College offers various agriculture courses that can be incorporated into an Agri-Business occupations major, Agricultural-Business major, General Agriculture major and Farm and Ranch Cooperative major. All courses in agriculture are taught by approximately 1.6 FTE instructors.

The two year Agricultural-Business program is designed to provide advanced training for individuals with a desire to broaden their scope of career opportunities with marketing firms, agricultural supply installations, equipment and fertilizer companies, and other business serving agriculture. This program also includes a farm and ranch component. The curriculum is planned to enable a student to transfer credits earned to other colleges or universities.

The General Agriculture curriculum is offered to students who desire basic training in a number of agricultural subjects. It is recommended for training for professions which involve a broad knowledge of agricultural operators and managers of general farms, county agricultural agents, agricultural writers and many other types of commercial agricultural positions.

The Farm and Ranch Cooperative is offered for those students who

are concurrently engaged in suitable agricultural employment which is relevant to the courses offered in the cooperative curriculum. The students enrolled in this program start the program beginning in November and complete one semester by the end of March. The second semester starts in April and ends in November and consists of an intensive 18 week study in cooperative work experience on a farm or ranch. The program's objectives are designed for veterans employed on local farms as preparation for management. The program has been in operation for one year and has a head-count enrollment of 35 students. Twenty-eight students are from Wheatland and seven are from Torrington.

The Agri-Business occupations program is designed to provide students practical training and on-the-job experience necessary for successful employment in farm and ranch management and the agricultural fertilizers and chemical industry.

The Associate of Arts degree, Associate of Applied Science degree and Certificate are given in the above programs.

Funding:

The Agricultural-Business Occupations program started in the fall of 1970 with approximately $17,000 in federal funds. Federal funding has been reduced and $850.00 was received in the fall of 1972. EWCC is gradually assuming the program costs through their operating budget. The Farm and

Ranch Cooperative is currently funded by the general operating budget without the use of federal funds.

Student Information:

AGRI-BUSINESS

Full-Time Headcount			Part-Time Headcount		
70-71	71-72	72-73	70-71	71-72	72-73
9	21	15	0	6	0

WHERE STUDENTS COME FROM

	70-71	71-72	72-73
Goshen County	6	16	10
Wyoming	1	6	3
Out-of-State	2	3	2

Many of the students majoring in Agricultural programs have been self employed and many did not complete degree requirements but remained in some form of agricultural employment. A small percentage of students that graduate do transfer to the University of Wyoming and there seems to be no apparent difficulty in the transfer of credit.

SHERIDAN COLLEGE-AGRICULTURE

Description:

Sheridan College offers general agriculture courses for those students that wish to pursue a four-year degree. An Agricultural Technology program started in the spring of 1972 and has been ongoing for the past one and a half years. All courses are currently taught by approximately 2.0 FTE instructors. The general agriculture courses have been taught for approximately 25 years.

The Agricultural Technology programs are in the areas of Farm and Ranch Management and Livestock Production. Each program requires in-service training and many of the courses are nonsequential which allows a student to enroll in a course that will meet his individual needs.

Funding:

The major source of funding for the agriculture courses comes from the general operational budget.

Student Information:

GENERAL AGRICULTURE AND AG-TECH

Full-Time Headcount			Part-Time Headcount		
70-71	71-72	72-73	70-71	71-72	72-73
46*	45*	37*	Data not available		

*Fall semester data.

Data were not available on where students came from for the area of agriculture. Institutionally the majority of students are from the local district with a smaller percentage coming from out-of-district and out-of-state. Placement data on agriculture graduates were not available.

GRADUATES

1970-71	1971-72	1972-73
4	4	8

CENTRAL WYOMING COLLEGE-AGRICULTURE

Description:

Central Wyoming College has offered an average of two to three general agriculture courses per semester for the past three years. The general agriculture curriculum is offered to those that desire basic two year training without specializing in any particular area. The program has been two-year transfer oriented until recently when Agri-Business was introduced in the fall of 1973 as a new career program. The agriculture program has had low enrollments taught by approximately .4 FTE faculty.

The college previously offered other agriculture related programs such as: Horse Trainer, Farrier and Packer-Guide. The enrollment data for these areas displayed in Table I were not included in this study.

Funding:

The general agriculture courses are included as part of the general operating budget, however; the Horse Training and Farrier programs did receive approximately $3,700 in federal funds for the academic year 1971-72.

Student Information:

GENERAL AGRICULTURE

Full-Time Headcount			Part-Time Headcount		
70-71	71-72	72-73	70-71	71-72	72-73
8*	13*	10*	Data not available		

*Fall semester data

Of those students that declared agriculture as a major approximately 50% of the students come from within the local district and approximately 50% come from the regional area. It is interesting to note that approximately 80% of the students come from out-of-state that were enrolled in the Horse Trainer, Farrier, and Packer Guide programs. Placement data were not available for agriculture however the following placement data are available for the Horse Trainer, Farrier and Packer Guide programs.

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CENTRAL WYOMING COLLEGE

DECLARED MAJOR	TOTAL	PLACED IN TRAINING RELATED JOBS	PLACED IN NON-TRAINING RELATED JOBS	ENROLLED IN ADDITIONAL TRAINING	CHANGED MAJOR	STATUS UNKNOWN	WITHDREW
Horse Trainer							
1971-72	19	6	0	1	0	1	11
Farrier							
1971-72	34	24	1	4	0	3	2
Packer-Guide							
Summer 1972	10	2	0	6	0	2	0
Summer 1971	4	1	2	0	0	0	1

Remarks: All ten of the students enrolled in Packer-Guide program summer 1972 were employed for the rest of the summer in training related work.

NORTHWEST COMMUNITY COLLEGE-AGRICULTURE

Description:

Northwest Community College has been offering courses in agriculture since 1947. Enrollments have been generally constant for the past three years taught by approximately 1.8 FTE faculty. The programs offered are the Professional Agriculture Degree and General Agriculture Certificate.

The Professional Agriculture Degree program is taken by those students that wish to transfer to a University to pursue a four-year degree. The general agriculture one-year certificate program was designed to raise the level of job entry of workers in production agriculture. Empahsis in the program is on skills used in farming and ranching operations. Students taking this program will have developed employment entry skills at the end of one year of study and are employable. In addition, students also have the opportunity to take advantage of extended day classes to upgrade their training.

A new program designed for veterans was started in the 1972-73 academic year. Several students from Wyoming and Montana have enrolled in the program.

Funding:

The major portion of funding for agriculture comes from the general operating budget with approximately $3,246 received in federal funds for the academic year 1972-73.

Student Information:

AGRICULTURE

Full-Time Headcount			Part-Time Headcount		
70-72	71-72	72-73	70-71	71-72	72-73
51*	47*	73*	No record	No record	30

*Fall semester data

Approximately 60% of the students come from in-district and the remaining number of students come from out-of-district and out-of-state in agriculture. Placement and follow up studies have been initiated at NWCC without much success, and the data available do not indicate significant information in the area of agriculture.

CASPER COLLEGE-AGRICULTURE

Description:

Casper College has been offering agriculture classes since 1953 and currently all agriculture courses are taught by 3.0 FTE instructors with each having a special area of interest. The college offers a general agriculture transfer two-year program plus four terminal programs. The programs are: Agri-Business, Agri-Mechanics, Agri-Construction Technology and Animal Science Technology.

The Agri-Construction Technology is approximately one year old and its interdisciplinary curriculum is designed to provide the student with a technical base of industrial standards for immediate productive employment. Students can be employed in either agricultural or residential construction.

The Agri-Mechanics curriculum is designed to provide training necessary to enter into some phase of agriculture, construction or the repair of machinery peculiar to agriculture.

The Animal-Science Technology is a two-year course of study designed to provide the training and skills necessary to enter some phase of livestock production either as an employer or as a farmer or rancher.

The Associate of Arts or Associate of Applied Science degree is given in the above areas.

The enrollment in the above programs have declined but not significantly compared with the enrollments in the late 1960's.

Funding:

The General Agriculture courses are funded through the general operating budget and the four technology programs received approximately $1,536 in Federal funds during the 1972-73 academic year.

Student Information:

GENERAL AGRICULTURE AND AG-TECH

	Full-Time Headcount			Part-Time Headcount		
	70-71	71-72	72-73	70-71	71-72	72-73
Gen. Agri.	58*	50*	40*	Data not available		
Ag Mechanics	6*	8*	3*			
Ag Construction	--	--	2*			
Animal Science	12*	14*	11*			

*Fall semster data

Approximately 50% of the students in agriculture come from the Casper in-district area with the remaining coming from the state and out-of-state. Placement data were not available.

UNIVERSITY OF WYOMING-AGRICULTURE

Description:

The College of Agriculture at the University of Wyoming offers a wide variety of subjects at the undergraduate level. Students may choose a major from 18 fields of special interest and arrangements can be made for a one or two year program should the student decide not to pursue a Bachelor degree. Agriculture has been a major area of academic teaching and research since the inception of the University.

For the purposes of this study this consultant arbitrarily selected comparable courses taught at the freshman and sophomore levels based on a study by the College of Agriculture and discussion with community college faculty. Enrollments in those courses have been fairly constant with no significant increase or decrease.

The University indicated that there has been close cooperation with the community colleges in the transferability of agriculture courses.

Funding:

Agriculture instruction is funded from the general operating budget.

Student Information:

Approximately 85% of the students majoring in agriculture curriculums are residents and 15% are non-resident. Job placement and follow-up information indicate that 25% continue in graduate study, 10% enter education and extension professions, 25% return to farming or ranching and farm management, 10% enter business and industry, 12% seek government work, 30% join the military services and 15% do not enter the employment field because of marriage or are otherwise unaccounted for.

APPRENTICESHIP TRAINING

Only three institutions offer apprentice training programs and all are coordinated with local trade unions. Individuals employed as an apprentice in a trade are enrolled in the courses and it doesn't appear that nonapprentice students are enrolled in these programs.

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TABLE II
APPRENTICESHIP TRAINING

Institutions	Sem. Hrs. of Classes Taught			Student Credit Hrs. Produced			Average Size of Classes			Percent of Small Classes			Instructional Salary Cost Per SCH		
	70/71	71/72	72/73	70/71	71/72	72/73	70/71	71/72	72/73	70/71	71/72	72/73	70/71	71/72	72/73
LCCC															
Fresh															
Soph															
Total			50			95			2.0			100			9.46
Casper															
Fresh															
Soph															
Total	70	88	88	1760	2945	2778	25.07	34.75	33.06	0	0	16	1.84	3.32	4.73
Western															
Fresh															
Soph															
Total		4*	93		48*	531		12*	6.71		0	70			see description

*Spring semester only

LARAMIE COUNTY COMMUNITY COLLEGE-APPRECTICESHIP TRAINING

Description:

LCCC offered part-time courses in sheet metal training during the academic year 1972-73 at the request of the local union. The courses were established in meeting the credit hour requirements of the local union.

Funding:

Instructional salaries are paid on a part-time basis out of the general operating budget.

Student Information

The students enrolled in these classes are currently employed and take the apprenticeship courses for up-grading and meeting journeymen requirements. All students reside within the LCCC local district.

SHEET METAL

Full-Time Headcount	Part-Time Headcount
72-73	72-73
0	19

WHERE STUDENTS COME FROM

In-District	Out-of-District
72-73	72-73
14	5

WESTERN WYOMING COMMUNITY COLLEGE-APPRENTICESHIP TRAINING

Description:

WWCC has offered courses in apprenticeship training since fall semester 1972 for iron workers, pipefitters, plumbers and carpenters. The local unions are utilizing WWCC facilities and also supply the instructional staff. WWCC provides the record keeping and grants college credit in cooperation with the local unions.

Funding:

Each apprentice is charged $18.00 tuition plus a $7.00 fee if enrolled in welding. WWCC pays the instructor $6.00 per teaching hour or approximately $576.00 per semester. No federal funds are received for this program. WWCC is, in a sense, subsidizing this training.

Student Information:

All students are apprenticed to the trade providing the training and all students are working in the local area.

CASPER COLLEGE-APPRENTICESHIP TRAINING

Description:

Casper College started offering apprenticeship training courses in 1950. At that time no academic credit was given and only recently has credit been offered for these courses. Casper College facilities are utilized in cooperation with the Joint Apprenticeship Training Commission (JATC) and courses are offered in the areas of: carpenter, electricity, plumbing, pipefitting, lineman, sheetmetal and iron worker. In the fall of 1973 Casper College offered a plant maintenance and mechanics course. These courses have been taught throughout the state in Laramie, Cheyenne, and Rock Springs. All instructors come from the specific trade areas.

Funding:

Casper College allocates instructional salaries out of the general operating budget and is then reimbursed by the JATC. Federal funds are not received for this program.

Student Information:

The apprenticeship training courses have high enrollments and students previously took courses in various parts of the state. All students are employed in a trade and are taking course work for upgrading their skills.

COMPUTER SCIENCE

Seven institutions in this study are offering Computer Science-Data Processing programs. The community colleges are implementing two year transfer programs, however; the majority of courses offered are related to one and two year occupational career programs. The program at the University of Wyoming has different goals and objectives and appears to be oriented toward advanced occupational levels in computer science.

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TABLE III
COMPUTER SCIENCE

Institutions	Sem. Hrs. of Classes Taught			Student Credit Hrs. Produced			Average Size of Classes			Percent of Small Classes			Instructional Salary Cost Per SCH		
	70/71	71/72	72/73	70/71	71/72	72/73	70/71	71/72	72/73	70/71	71/72	72/73	70/71	71/72	72/73
Eastern															
Fresh															
Soph			19			96			5.44			88			122.78
Total			7			37			10.66			66			122.37
			26			133									121.32
Central															
Fresh	37	26	23	177	176	98	4.61	7.50	4.56	61	80	100	60.53	30.00	69.66
Soph	24	37	29	82	99	77	3.29	3.00	2.44	100	100	100	79.66	55.08	98.79
Total	61	63	52	259	275	175							72.39	51.62	82.48
LCCC															
Fresh	0	6	6	0	93	93	0	15.50	15.50	0	0	0	0	6.48	7.74
Soph	15	6	6	273	66	108	12.20	11.00	18.00	20	0	0	4.53	9.15	4.72
Total	15	12	12	273	159	201							4.53	5.70	6.11
Northwest															
Fresh	29	25	22	569	519	423	19.50	22.87	26.60	40	12	12	22.31	20.68	27.75
Soph	4	12	10	31	139	108	6.00	15.83	11.00	50	50	25	74.09	37.25	45.45
Total	33	37	22	600	658	531							24.69	24.35	31.33
Casper															
Fresh	25	25	27	597	564	536	23.22	22.00	19.30	0	0	20	19.75	21.88	23.56
Soph	12	15	13	246	154	135	17.50	8.86	8.50	0	57	66	22.93	44.33	57.37
Total	37	40	40	843	718	671							20.68	26.69	30.36
Western															
Fresh	29	52	47	329	627	555	12.36	10.62	10.63	54	42	63	46.41	36.08	24.50
Soph	6	10	19	33	49	111	5.50	7.00	5.29	100	100	71	40.48	76.73	65.54
Total	35	62	66	362	676	666							49.57	39.03	32.72
University															
Fresh	5	4	11	135	82	439	27.00	32.00	42.87	0	50	0	43.51	62.78	14.00
Soph	6	3	6	90	87	153	15.00	9.66	25.50	0	0	0	65.26	44.82	39.39
Total	11	7	17	225	169	592							52.21	53.53	20.57

EASTERN WYOMING COMMUNITY COLLEGE
COMPUTER SCIENCE-DATA PROCESSING

Description:

Computer Science-Data Processing is a recent addition to the programs offered at Eastern Wyoming Community College. The program started in the fall of 1972 and has been offered for one year. The program has been characterized by low enrollments and courses were taught by a full-time faculty member in the fall and then taught by part-time faculty in the spring. This resulted in high instructional costs during the first year of operation.

The program was designed along occupational levels allowing students to obtain skills that would equip them to find employment as a key punch operator, computer operator, or computer programmer with additional skills in business fundamentals and accounting.

EWCC does not have a computer and utilized local computer resources for that purpose. Due to the limited student interest in this program, the college has revised its goals in this area and now offers only those computer science courses which support other programs.

Funding:

The funding for the first year came entirely from federal resources

however, EWCC did not ask for a renewal of federal funds for its second year of operation.

Student Information:

The majority of students taking data processing courses majored in other courses of study. Only two students indicated a major in computer science and both were from Goshen County. The Fall 1973 enrollment data shows an increase in the number of computer science majors. The job availablility within the local area is questionable.

CENTRAL WYOMING COLLEGE
COMPUTER SCIENCE-DATA PROCESSING

Description:

Central Wyoming College has offered Computer Science-Data Processing courses for the past three years. The program was designed to provide job entry skills in key punch operation, computer programmer and junior analysts. The program started with offering a proliferation of courses and a large majority of classes had low enrollments. There has been a significant decline in enrollment over the past three years.

Central Wyoming College has evaluated the computer science-data porcessing program and is now limiting the number of course offerings and is utilizing local industry for a portion of the instruction. All courses are presently taught by part-time instructors which were previously taught by 1.5 FTE instructors. An advisory board is currently being utilized in this area.

There has been no purchase of computer equipment and CWC utilizes local computer resources for that purpose.

Funding:

Federal funding was utilized at the outset of the programs however, currently federal funding has not been requested by CWC.

Student Information:

COMPUTER SCIENCE-DATA PROCESSING

Full-Time Headcount			Part-Time Headcount		
70-71	71-72	72-73	70-71	71-72	72-73
16*	11*	8*	Data not available		

*Fall semester data

Approximately 60% of the students majoring in computer science come from the local area and the remaining 40% come from within the region and in-state. Placement of the computer science graduates is found in the following data:

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CENTRAL WYOMING COLLEGE

DECLARED MAJOR	TOTAL	PLACED IN TRAINING RELATED JOBS	PLACED IN NON-TRAINING RELATED JOBS	ENROLLED IN ADDITIONAL TRAINING	CHANGED MAJOR	STATUS UNKNOWN	WITHDREW
Computer Science							
1971-72	16	2	6	2	0	4	2
1970-71	11	3	3	2	1	2	0

LARAMIE COUNTY COMMUNITY COLLEGE
COMPUTER SCIENCE-DATA PROCESSING

Description:

LCCC does not offer computer science courses which would allow a student to complete a major course of study. All courses are taught as part-time evening courses at the request of local community needs and are taught by part-time instructors. There has been an average of two courses taught per year since the beginning of LCCC in the fall of 1969.

Funding:

The funding for instruction is allocated out of the general operating budget.

Student Information:

Approximately 850 of the students enrolled in these courses are local residents and many are employed in areas where computer science-data processing skills are necessary for upgrading their employability. Approximately 75% of the students in these courses are part-time.

NORTHWEST COMMUNITY COLLEGE
COMPUTER SCIENCE-DATA PROCESSING

Description:

NWCC offers both computer science and data processing programs taught by approximately 1.5 FTE instructors. NWCC purchased its own IBM 1130 computer and is presently utilizing approximately 40% of the time in instruction and 60% of the time in institutional matters, i.e. registrars office, mailing, budget and payroll.

The computer science program is suggested for those students who desire to major in computer science with specializations in electrical engineering or mathematics. The programs give lower division education to prepare for either a four year or higher degree.

The data processing program is designed to train qualified technicians for employment in business or industrial firms. The student can transfer to a senior institution or enter employment at a technical or skill level upon completion of the one or two year data processing program. Enrollments have dropped both in computer science and data processing.

The computer availablility for institutional usage and instruction has been ongoing for a period of five years.

Funding:

Funding for the current computer science and data processing programs has been allocated from the NWCC general operating budget.

Student Information:

COMPUTER SCIENCE-DATA PROCESSING

Full-Time Headcount			Part-Time Headcount		
70-71	71-72	72-73	70-71	71-72	72-73
37*	30*	31*	14	14	14

*Fall Semester Data

The majority of computer science and data processing majors come from the local and regional area. Placement data were not available for this particular program.

CASPER COLLEGE
COMPUTER SCIENCE-DATA PROCESSING

Description:

Casper College offers a data processing program and in the fall of 1973 a computer science program was added to the curriculum.

The data processing courses have been taught by 1.8 FTE instructors and the student has the option of a one year or two year program. The one year and two year curriculum are designed to prepare the student for employment in the field of business data processing. There has been a decline in enrollment over the past five years however, many students taking data processing courses are non-majors.

Casper College rents its computer equipment and approximately 50% of the computer time is utilized in the instructional process. The remaining computer time is utilized for institutional purposes, i.e. record keeping, registation, payroll, budget, state reporting, etc.

Funding:

At present Casper College is not receiving federal funds for partial support of the data processing program.

Student Information:

DATA PROCESSING

Full-Time Headcount			Part-Time Headcount		
70-71	71-72	72-73	70-71	71-72	72-73
74*	46*	29*	Data not available		

*Fall semester data

The majority of the full-time students come from the Casper local district and the remaining come from within the state. Placement data on data processing graduates were not available.

WESTERN WYOMING COMMUNITY COLLEGE
COMPUTER SCIENCE-DATA PROCESSING

Description:

WWCC offers Business Data Processing courses that have been taught by approximately 2.2 FTE faculty during the past three years. Data processing has been offered for the past five years and enrollments in the regular college level courses have shown a gradual decrease. The addition of a high school cooperative program has increased the enrollment for the past two years.

The data processing courses are primarily designed to provide a student with the job entry level skills for employment as a key punch operator, computer operator or computer programmer. Secondary course objectives are designed to provide the student with a level of proficiency, enabling the student to seek employment as a data processing clerk, computer console operator and sorter operator.

Recently WWCC engaged in a cooperative data processing program with Rock Springs and Green River high schools with the instruction focusing on punched-card equipment and flow charting techniques. The data from this program are part of the aggregated data shown on Table III.

Funding:

Federal funds in the amount of approximately $5,822 were allocated to WWCC for data processing during the academic 1972-73 year. The co-operative program costs were shared by both high schools and WWCC.

Student Information:

DATA-PROCESSING

Full-Time Headcount			Part-Time Headcount		
70-71	71-72	72-73	70-71	71-72	72-73
17*	24*	14*	10*	42*	40*

*Fall semester data

Practically all of the total number of students come from the WWCC local district. Of the placement data available, four out of six students were placed in the Rock Springs-Green River area as key punch or computer operators. This placement information is not complete.

UNIVERSITY OF WYOMING
COMPUTER SCIENCE

Description:

The University of Wyoming has offered computer science as a major for the past two years. This program has previously been interdisciplinary in nature but presently computer science is a separate department. The freshman and sophomore courses have been taught by .5 FTE instructors to 1.4 FTE instructors during the past three years. The data used in this study are courses that appear comparable to those taught at the community colleges.

The computer science program objectives are different than those of the community colleges where the major occupational objective is to train professional program or systems analysts. The curriculum emphasis is on analysis and design with a heavy concentration in mathmatics. Data processing courses are not offered, i.e. key punch. Very few freshmen and sophomore computer science courses are offered and a student does not take the majority of the course work until the beginning of the junior year.

Funding:

Computer science instructional salaries are allocated from the general operating budget.

Student Information:

There have been approximately 35 students that have majored in computer science with two graduating with Bachelor degrees during the past two years. Approximately 80% of the students majoring in computer science are residents and 20% are non-residents. A percentage breakdown on the majors was not available.

LAW ENFORCEMENT

Six institutions offer a Law Enforcement program. Three programs within the community colleges were funded through the Governors Crime Commission and each institution has taken the responsibility of continuing the programs when federal funds were terminated. The programs within the community colleges have focused mainly on in-service training for local law enforcement officers. The program at the University of Wyoming is new and is designed for the student seeking a bachelors degree.

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TABLE IV
LAW ENFORCEMENT

Institutions	Sem. Hrs. of Classes Taught			Student Credit Hrs. Produced			Average Size of Classes			Percent of Small Classes			Instructional Salary Cost Per SCH		
	70/71	71/72	72/73	70/71	71/72	72/73	70/71	71/72	72/73	70/71	71/72	72/73	70/71	71/72	72/73
Eastern															
Fresh		24	18		138	172		5.75	10.66		100	16		no cost	18.83
Soph		15	12		54	205		3.60	14.66		100	16		no cost	7.02
Total		39	40		192	377									12.41
Central															
Fresh	34	25	43	332	313	452	9.61	12.67	10.38	53	44	56	21.68	15.12	9.37
Soph	19	28	36	297	531	563	15.29	18.90	15.21	28	20	21	6.06	8.91	8.33
Total	53	53	79	629	844	1015							14.30	11.21	8.89
LCCC															
Fresh	9	42	36	195	354	549	21.67	8.43	15.25	0	57	33	3.57	no cost	17.11
Soph	0	15	6	0	156	141	0	10.40	23.50	0	40	0		no cost	38.80
Total	9	57	42	195	510	690							3.57	no cost	23.75
Casper															
Fresh	9	16	11	111	368	259	12.33	22.57	21.40	33	0	0	63.60	27.55	22.73
Soph	6	3	9	81	90	246	14.00	30.00	27.33	0	0	0	23.85	18.16	20.27
Total	15	19	20	192	458	505							36.89	25.70	21.53
Western															
Fresh	42	38	23	753	312	189	15.87	7.86	10.90	25	66	57	15.50	39.06	46.33
Soph	9	36	12	265	486	105	29.34	13.50	8.75	0	41	75	34.34	22.75	38.03
Total	51	74	35	1018	798	294							20.43	29.13	43.37

EASTERN WYOMING COMMUNITY COLLEGE - LAW ENFORCEMENT

Description:

Law enforcement at EWCC started in the fall of 1971 and has been ongoing for the past two years. The program emphasis has focused on in-service training and upgrading for local area law enforcement employees. The courses were designed in cooperation with Western Wyoming Community College and Laramie County Community College during the academic year of 1971-72 and instruction on the Eastern campus was taught through the use of the VERB system. This project was funded through the Governor's Crime Commission with Western Wyoming Community College being the coordinating agent. In 1972-73 Eastern offered part-time courses of the same design as the previous year and separated from the use of the VERB system. During that year two special workshops were offered in cooperation with the State of Wyoming Highway Department.

Funding:

During 1971-72 there were no instructional costs encumbered by Eastern due to the cooperative grant through the Governor's crime commission. No part-time courses were taught in addition to those taught on the VERB system that year. During 1972-73 Eastern hired part-time

instructors and instructional costs were allocated to that program out of the general operating budget. Federal funds were not made available to EWCC that year.

Student Information:

LAW ENFORCEMENT

Full-Time Headcount		Part-Time Headcount	
71-72	72-73	71-72	72-73
1*	10*	16*	24*

* Fall semester data

Approximately 90-100 percent of the students in Law Enforcement are employed in the field of law enforcement and 98% of the students reside within Goshen County. Two of the part-time students reside in Nebraska.

CENTRAL WYOMING COLLEGE - LAW ENFORCEMENT

Description:

Law Enforcement at Central Wyoming College has been offered since the fall of 1970 with a curriculum designed to enable both law enforcement officers and the preservice students to prepare for a career in law enforcement. The coursework focuses on the technical and in-service areas of instruction on both a practical and theoretical level. All courses in the years 1970-71 and 1971-72 were taught by 1.0 FTE instructor. The 1972-73 courses were taught by part-time instructors.

Courses have been taught in many small towns within the region and up into the Big Horn Basin. A cooperative effort has been established with Northwest Community College making this possible.

Funding:

The Law Enforcement has been funded by a grant from the Governor's Crime Commission for the past three years. The funding starting in the fall of 1973 will be the responsibility of Central Wyoming College.

Student Information:

LAW ENFORCEMENT

Full-Time Headcount			Part-Time Headcount		
70-71	71-72	72-73	70-71	71-72	72-73
37*	62*	66*	Data not available		

*Fall semester data

Students in law enforcement have taken courses throughout the region and many are full-time law enforcement officers. The following placement information does not include 1972-73 data.

CENTRAL WYOMING COLLEGE

DECLARED MAJOR	TOTAL	PLACED IN TRAINING RELATED JOBS	PLACED IN NON-TRAINING RELATED JOBS	ENROLLED IN ADDITIONAL TRAINING	CHANGED MAJOR	STATUS UNKNOWN	WITHDREW
Law Enforcement							
1971-72	33	22	1	5	1	0	4
1970-71	15	11	0	1	1	0	1

Remarks: In addition to our daytime enrollment, we had 44 students in Extended Day Police Science Fall Semester 1971 and 72 Spring Semester 1972. Almost all of these students were full-time Law Enforcement Officers taking a full-time schedule of classes in Police Science.

LARAMIE COUNTY COMMUNITY COLLEGE - LAW ENFORCEMENT

Description:

Law Enforcement started at LCCC in the fall of 1970 with three part-time courses offered that academic year. In the fall of 1971, LCCC offered Law Enforcement credit through a coordinated effort with Western Wyoming Community College and Eastern Wyoming Community College. Two part-time courses were taught in addition to those taught by the VERB system that year. In the fall of 1972, LCCC hired 1.0 FTE instructors to teach the Law Enforcement courses to be supplemented with part-time instructors.

The Law Enforcement curriculum is very similar to that of the other community colleges designed mainly with in-service and pre-service objectives in mind. The cooperation with the local law enforcement agencies has been good.

Funding:

Federal funds have been utilized by LCCC during the years 1970-71 and 1971-72 to maintain its operation.

Student Information:

LAW ENFORCEMENT

Full-Time Headcount			Part-Time Headcount		
70-71	71-72	72-73	70-71	71-72	72-73
12*	27*	36*	18*	33*	36*

*Fall semester data

WHERE STUDENTS COME FROM

In-District			Out-of-District			Out-of-State
70-71	71-72	72-73	70-71	71-72	72-73	
26*	36*	63*	2*	1*	3*	None

*Fall semester data

The majority of students are part-time and most are residents within the LCCC tax district. The majority of students are employed in some area of law enforcement.

CASPER COLLEGE - LAW ENFORCEMENT

Description:

Casper College's Law Enforcement program objectives are: to give students a liberal education in conjunction with intensive professional training for police and other investigative services; to prepare students for a career in this professional field; to develop qualities of leadership; and, to foster ideals of professional achievement in public service. The program has been designed for both pre-service and in-service students.

Casper College has enjoyed a close working relationship with the Casper law enforcement agencies and courses are taught according to the day and night shiftwork of the local officers. The program provides an internship for the pre-service student to become familiarized with the realistic duties and responsibilities of law enforcement officers and agencies. The courses are presently being taught by 1.4 FTE instructors.

Funding:

Casper College has received federal funds to supplement their operational budget in funding the law enforcement program.

Student Information:

LAW ENFORCEMENT

Full-Time Headcount			Part-Time Headcount		
70-71	71-72	72-73	70-71	71-72	72-73
9*	24*	25*	8*	21*	23*

*Fall semester data

Approximately 50% of the pre-service students are from within the district and the majority of in-service students are local law enforcement personnel. Approximately four to five students have graduated each year.

WESTERN WYOMING COMMUNITY COLLEGE - LAW ENFORCEMENT

Description:

Western Wyoming Community College has offered law enforcement since the fall of 1970 and during the academic year 1971-72 WWCC received the majority of federal grant funding to teach courses through the use of the VERB system. The program currently is taught by 1.0 FTE instructor and the selection of courses is comparable to those offered by other community colleges.

An internship program has been established and the overall program focuses in three central goals: (1) preparation of the student for immediate employment in some area of criminal justice, (2) a two-year transfer program for those students seeking an advanced degree and (3) certification for both in-service and pre-service personnel for successful program completion at WWCC.

WWCC has submitted a request to become an accredited police academy training station.

Funding:

The majority of funding for Law Enforecment at WWCC has been from the Governor's Crime Commission and from state on-going reimbursements.

Student Information:

LAW ENFORCEMENT

Full-Time Headcount			Part-Time Headcount		
70-71	71-72	72-73	70-71	71-72	72-73
17	17	7	36	47	4

The majority of both pre-service and in-service students come from the local area and many are employed full-time in local and regional law enforcement agencies.

UNIVERSITY OF WYOMING - LAW ENFORCEMENT

Description:

The Law Enforcement program at the University of Wyoming is two years old and has been a part of the political science department. A student can obtain a B A. degree in Political Science (Law Enforcement) upon completion of the requirements for the degree. The basic curriculum at all levels appears to be interdisciplinary with no in-service courses offered at the freshmen and sophomore levels. All courses in law enforcement are offered starting at the junior level. The remaining courses are taken in sociology, psychology and in other general education areas.

The objectives of the program are designed for students that are seeking professional careers on the local, state or federal levels i.e. parole officer, game and fish, FBI, etc.

The University does not offer courses that are comparable to those taught in the community colleges and therefore data were not available for display in Table IV.

Funding:

Instructional salaries are allocated out of the general operating budget and no federal funds are received for this area.

Student Information:

This is a new program and the first class will graduate at the end of the 1973 fall semster. There are seven degree candidates and six are presently employed in law enforcement work.

SECRETARIAL SCIENCE

All institutions in this study offer some form of secretarial science program. Many of the community colleges offer one and two year programs and others offer career level programs. Enrollments appear stable in the freshman year but tend to decrease in the sophomore year. This is characteristic of many small rural community colleges.

TABLE V

SECRETARIAL SCIENCE

BEST COPY AVAILABLE

Institutions	Sem. Hrs. of Classes Taught			Student Credit Hrs. Produced			Average Size of Classes			Percent of Small Classes			Instructional Salary Cost Per SCH		
	70/71	71/72	72/73	70/71	71/72	72/73	70/71	71/72	72/73	70/71	71/72	72/73	70/71	71/72	72/73
Eastern															
Fresh	50	55	65	664	612	595	11.21	10.00	14.87	39	54	58	28.43	29.08	34.91
Soph	6	11	12	40	45	45	5.00	6.00	3.75	100	75	100	17.40	61.39	34.73
Total	56	66	77	704	658	640	10.30						27.80	31.34	34.89
Sheridan															
Fresh	13	13	14	185	259	297	15.00	19.20	21.40	20	0	20	28.41	20.65	15.90
Soph	17	15	19	143	161	143	8.71	10.83	8.28	57	33	71	45.74	37.09	42.76
Total	30	28	33	329	420	440							35.94	26.95	25.32
Central															
Fresh	47	63	54	382	869	607	8.69	13.70	11.64	63	45	35	28.47	15.55	28.59
Soph	3	8	7	12	104	50	4.00	13.00	7.00	100	50	100	81.75	7.50	32.00
Total	50	71	61	394	973	657							30.09	14.69	28.85
LCCC															
Fresh	118	145	130	1638	2372	2165	16.34	17.27	15.97	30	25	25	14.50	13.14	14.44
Soph	24	12	20	186	159	139	7.75	13.25	7.00	75	50	85	29.14	17.83	66.15
Total	142	157	150	1824	2531	2304							16.13	13.44	17.56
Northwest															
Fresh	66	58	63	1082	1427	1192	16.56	24.27	18.45	24	9	33	18.16	13.16	12.93
Soph	14	26	27	139	250	274	9.60	11.57	9.88	60	28	44	38.82	27.79	35.94
Total	80	84	90	1221	1677	1466							20.44	15.94	17.23
Casper															
Fresh	56	52	66	1155	1174	1395	20.69	22.20	20.32	3	0	3	21.56	19.36	22.32
Soph	21	21	21	445	426	414	21.28	20.28	19.71	0	0	0	19.34	23.27	22.31
Total	77	73	87	1600	1600	1809							29.01	20.40	18.12
Western															
Fresh	69	44	40	474	620	397	11.73	13.31	8.82	13	10	23	33.82	28.87	40.53
Soph	3	6	12	27	51	78	9.00	8.51	6.00	100	50	75	42.22	46.27	92.53
Total	72	50	52	501	671	475							24.27	30.19	49.11
University															
Fresh	27	29	30	656	806	724	13.20	27.63	21.58	10	9	0	24.67	20.94	20.58
Soph	9	16	26	147	325	286	16.33	17.33	17.83	0	0	0	25.85	20.92	32.63
Total	36	45	56	803	1131	1010							24.89	20.93	23.99

EASTERN WYOMING COMMUNITY COLLEGE - SECRETARIAL SCIENCE

Description:

Eastern Wyoming Community College offers stenographic office, clerical office and secretarial science-business education programs taught by approximately 2.4 FTE instructors. The programs have been a part of the college curriculum for approximately 15 years.

The secretarial science-business education program offers both the secretarial skills necessary for employment in a business office as well as many of the education courses required by the State Department of Education for certification as secondary school teachers.

The two year clerical office program is designed to provide beginning and advanced training for the individuals with a desire to broaden their career opportunities in the business field with emphasis on developing accounting and clerical skills. The program covers the various vocational areas of business such as machine operation, receptionist, bookkeeping, cashiers and typists.

The two stenographic office programs are designed to provide beginning and advanced training for individuals with a desire to broaden

their career opportunities in the business office with emphasis in taking dictating and transcribing shorthand.

Enrollments have remained fairly stable during the past three years with many students going into employment after one year of classwork.

Funding:

Three programs have been supplemented by federal funding each year.

Student Information:

SECRETARIAL SCIENCE

Full-Time Headcount			Part-Time Headcount		
70-71	71-72	72-73	70-71	71-72	72-73
20	22	17	20	19	11

WHERE DO STUDENTS COME FROM

	70-71	71-72	72-73
Goshen County	31	34	25
Wyoming	6	5	3
Nebraska	3	1	0

Very few of the students that start the secretarial programs complete the requirements for the two year degree due to job availibility within the local areas. Many students seek and obtain employment immediately after one year of coursework.

SHERIDAN COLLEGE - SECRETARIAL SCIENCE

Description:

A one or two year secretarial science program, medical, legal and executive secretarial programs are offered at Sheridan College. All courses are taught by 1.2 FTE instructors.

A student has the option of completing a one year program prior to employment or the student can complete the two-year requirements for the Bachelors degree.

Retention of the second year student at Sheridan has been a problem in the sophomore level courses. Enrollments have decreased slightly over the past five years perhaps; in part, due to propietary institutions within the regional area.

Funding:

Sheridan has received ongoing Federal funds to aid financing a portion of the secretarial programs.

Student Information:

SECRETARIAL SCIENCE

Full-Time Headcount			Part-Time Headcount		
70-71	71-72	72-73	70-71	71-72	72-73
17	23	10	Data not available		

Approximately 60% of the students reside in Sheridan that enroll in secretarial courses with a majority of students being full-time day students. Placement data were not available for this area.

CENTRAL WYOMING COLLEGE - SECRETARIAL SCIENCE

Description:

Secretarial science courses have been offered at Central Wyoming College since the beginning of the college and enrollments have been fairly stable with decreased offerings and enrollments in the sophomore level. All courses are taught by 1.0 FTE instructors plus additional part-time instructors.

The curriculum provides both practical and theroritical preparation for career secretaries in business and industry. A portion of the courses are taught through the Audio-Visual-Tutorial (AVT) system. The AVT approach individualizes the instruction and allows the student to start the course at any time and progress at his own pace.

Many students have not completed the requirements for the two year degree, and seek employment after the completion of two or three semesters of coursework.

Funding:

A portion of the total instructional costs have been supplemented by the utilization of federal funds each year at Central Wyoming College.

Student Information:

SECRETARIAL SCIENCE

Full-Time Headcount			Part-Time Headcount		
70-71	71-72	72-73	70-71	71-72	72-73
29*	60*	38*	Data not available		

*Combined fall-spring data

WHERE STUDENTS CAME FROM

	71-72	72-73
In-District	23	32
Out-of-District	0	0
Out-of-State	1	0

The majority of students enrolled in secretarial science are full time students and practically all reside within the local district. The following placement data excludes the 1972-73 academic year.

BEST COPY AVAILABLE

CENTRAL WYOMING COLLEGE

DECLARED MAJOR	TOTAL	PLACED IN TRAINING RELATED JOBS	PLACED IN NON-TRAINING RELATED JOBS	ENROLLED IN ADDITIONAL TRAINING	CHANGED MAJOR	STATUS UNKNOWN	WITHDREW
Secretarial Science							
1971-72	48	15	5	14	2	6	6
1970-71	21	14	0	0	0	5	2

LARAMIE COUNTY COMMUNITY COLLEGE - SECRETARIAL SCIENCE

Description:

Laramie County Community College offers medical secretary, office administration and office occupations programs. The students currently enrolled in these areas are being taught by 3.1 FTE instructors and seven part-time instructors.

The medical secretary program is designed for eventual job placement in a doctors office, hospital or clinic. The office administration two-year program is designed for those students that will eventually transfer to a four-year institution to complete a degree in executive office administration or secretarial science education.

The office occupations cluster is designed along occupational levels in a one or two-year program. The occupational levels are: file clerk, clerk typist, bookkeeper, secretary, secretary-bookkeeper, and stenographer. The student has the option to change from one level to the next while enrolled. There is a low enrollment in the sophomore offerings and many students receive certificates but do not receive Associate degrees in the secretarial science area. A large number of students want terminal training and find employment prior to the completion of degree requirements.

Funding:

Laramie County Community College has received ongoing occupational federal funds for the past three years to supplement the operational budget for instructional costs.

Student Information:

SECRETARIAL SCIENCE

Full-Time Headcount			Part-Time Headcount		
70-71	71-72	72-73	70-71	71-72	72-73
41*	50*	43*	216*	212*	173*

*Fall enrollment data

Approximately 90% of the students enrolled in secretarial science programs reside within the local district and the remaining are out-of-district. The majority of out-of-district students are attending classes on a full-time basis.

A recent follow-up study at LCCC indicated that of the 43% of respondents to the questionnaire in secretarial science, approximately 90% were employed. Many students indicated that they were employed in a field directly related to their training and the majority were employed full-time. The local area has generally had a high demand for manpower needs in this occupational area and a large percentage of the students find employment within the local district.

NORTHWEST COMMUNITY COLLEGE - SECRETARIAL SCIENCE

Description:

Northwest Community College offers a one and two-year secretarial science program with occupational level options or two-year and four-year degree options. All courses are currently taught by 2.4 FTE instructors. Some of the courses offered in this area are taught through the use of Audio-Visual-Tutorial instruction on an individualized format.

The two-year secretarial science program closely parallels the requirements for a four-year college degree in secretarial science or office administration and is also designed for specific employment entry. The one-year programs are offered in the secretarial and stenographic levels. A two-year medical stenography is another option available to students at NWCC.

Funding:

For the past three years NWCC has received ongoing occupational Federal funds to supplement instructional costs.

Student Information:

SECRETARIAL SCIENCE

Full-Time Headcount			Part-Time Headcount		
70-71	71-72	72-73	70-71	71-72	72-73
25	56	41	37	19	34

The majority of students come from the local district and most obtain employment within the local area. Specific placement data were not available.

CASPER COLLEGE - SECRETARIAL SCIENCE

Description:

The secretarial science curriculum at Casper College was developed to include those courses which specifically prepare the student to continue toward a degree in Office Administration, Secretarial Science or Business Education. Students also have the option of enrolling in a one-or-two-year career program. The courses are currently taught by 2.4 FTE instructors.

Casper College has had no significant decline in enrollment in this area and courses have been a part of the college curriculum for 28 years. There are also large enrollments of part-time students in the evening program.

Funding:

Casper College has received ongoing occupational Federal funds to supplement its operational budget in meeting instructional costs.

Student Information:

SECRETARIAL SCIENCE

Full-Time Headcount			Part-Time Headcount		
70-71	71-72	72-73	70-71	71-72	72-73
86	97	81	6	4	9

A majority of all students enrolled in this area reside within the local district and a large percentage of students obtain employment in Casper. Specific placement data were not available.

WESTERN WYOMING COMMUNITY COLLEGE - SECRETARIAL SCIENCE

Description:

Western Wyoming Community College offers secretarial courses leading to one and two-year certificates or a course of study leading to an A.A.S. degree. Approximately 90% of the students are in career secretarial programs and the remaining 10% of the students enroll in the two year transfer program. Sophomore enrollments are low and the majority of the students seek employment after the completion of two or three semesters of coursework. The courses are currently taught by 1.9 FTE instructors.

Individualized instruction is being evaluated and WWCC may implement this type of instructional mode in the near future. Secretarial science instruction has been ongoing at WWCC for approximately 13 years.

Funding:

For the past three years, WWCC has received ongoing state vocational reimbursement funds to supplement their instructional costs.

Student Information:

SECRETARIAL SCIENCE

Full-Time Headcount			Part-Time Headcount		
70-71	71-72	72-73	70-71	71-72	72-73
15	29	20	4	4	1

A majority of the students that are employed are in the Rock Springs - Green River area and in-district students comprise the majority of students enrolled in courses.

UNIVERSITY OF WYOMING - SECRETARIAL SCIENCE

Description:

The University of Wyoming offered two-year programs in secretarial science prior to 1969. The two-year programs were phased out and business education was transferred to the Department of Vocational Education.

The University does not offer specific one and two-year programs; however; many students enroll in freshmen and sophomore courses to upgrade their skills for local employment. The objectives of the four-year programs are to train professional administrative secretaries or business education teachers. Skill courses are not a major part of the curriculum in both areas and work experience is a part of the course of study in the office administration program. The skill courses have a teacher education emphasis.

For the purposes of comparability, only those skill courses taught at the freshman and sophomore levels were selected for this study.

Funding:

The University of Wyoming allocate instructional salaries out of the general operating budget.

Student Information: Data not available

SECTION III

Conclusions of the Study

Agriculture:

Agriculture curriculums are being offered at six institutions and the programs have shown a decrease in enrollment in most institutions This directly relates to increased instructional costs and small class sizes. The community colleges have designed their programs to meet local and regional demands and the University of Wyoming programs continue to meet state needs in all phases of agriculture. The agriculture programs at the University of Wyoming and the community colleges have a close cooperative relationship and transfer problems appear to be nonexistent. All community colleges offering agriculture programs have developed and implemented new agriculture technology programs within the last three years.

Apprenticeship Training:

Three community colleges offer apprenticeship training programs and all appear to be offering the programs based upon local and regional demands. Casper College offers the majority of programs throughout the state however; LCCC and WWCC are currently becoming more involved in establishing specialized apprentice courses based upon local union request.

Computer Science:

Six institutions offer computer science programs with Laramie County Community College offering computer science on a part-time basis. Three community colleges have purchased computer equipment and three community colleges utilize local computer resources on a rental basis. This area shows a significant decrease in enrollment which contrubutes to increased costs. Central Wyoming College and Eastern Wyoming College have redesigned their programs and are now offering courses utilizing part-time instructors.

There appears to be a difference in the goals and objectives related to student outcomes between the programs offered at the University of Wyoming and the community colleges. Many students have not transferred from the community colleges, which are now offering transfer programs, and it appears that there may be some concern with the transferability of these courses.

Law Enforcement:

Six institutions offer law enforcement programs however; courses at the University are not offered at the freshman and sophomore levels. There appears to be a marked difference in the goals and objectives regarding student outcomes between the University and community colleges. This could lead to transfer problems should a student decide to transfer in this area. Very few students are enrolled as transfer students in the community colleges and the majority are enrolled for in-service coursework.

The majority of community colleges started the programs with federal funding and currently most community colleges have incorporated program costs into the operating portion of the budget.

This program area has undoubtedly served local needs and provided opportunity for Wyoming law enforcement officers to obtain advanced training.

Secretarial Science:

All institutions in this study offer secretarial science programs and many have offered programs since the inception of each institution. Some community colleges are currently implementing innovative instructional approaches to this area. This program appears to have stable enrollments in the majority of institutions surveyed and transfer to the University doesn't appear to be a problem.

Secretarial science students are finding employment in their local communities and many do not graduate with two-year degrees due to employment availability.

General Conclusions:

A number of factors must be considered when analyzing the question of unnecessary duplication of effort. Factors that were considered in the study were: (a) total credits taught (b) class enrollments (c) instructional costs (d) program accessibility (e) institutional and program goals and objectives (f) transferability of courses (g) student information (h) job placement and follow up and (i) future program planning.

It does not appear to this consultant that there is excessive unnecessary duplication of effort in the program areas surveyed in this study. Computer science is the only area that appears questionable due to the decreased enrollments, computer technological flexibility, local employment availability and increased instructional costs.

UNIVERSITY OF CALIF.
LOS ANGELES

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SECTION IV
Recommendations

The following recommendations are based upon the analysis of the data gathered in this study and the consultant's observations of higher education in the State of Wyoming.

1. Future program planning should be thoroughly examined in the areas of computer science and agriculture. Expansion of existing programs and the development of new programs in these areas may eventually lead to unnecessary duplication of effort provided student enrollment maintains its present level. In general, it is better to operate fewer high quality programs that incur higher instructional costs.

2. The Wyoming higher education institutions should consider the implementation of some type of management information system. A management information system can be utilized as a tool for gathering information "requirements" to aid in state planning.

3. The State of Wyoming should consider the development of a statewide master plan for all instituions within the state. General agreement must be reached among the University of Wyoming, the community colleges, the Community College Commission and the Higher Education Council regarding their jurisdictional boundaries regarding statewide planning and coordination.

4. The role and function of the Higher Education Council should be clearly defined as it relates to the Community College Commission and other constituents in post secondary education. The responsibility for anticipating changes in post secondary education is a statewide concern and should be resolved by concerned individuals and institutions within Wyoming. The State of Wyoming does not have the complexity of problems in postsecondary education found in some other states. However, this does not preclude the possibility major complex problems will emerge. A genuine effort of all constituencies involved can only lead to the provision of quality postsecondary education for the people of the State of Wyoming.